

STUDY AREA

The study area for SJRMP is shown on Figure 2. The area is the San Joaquin River from Friant Dam downstream through the northern boundary of the South Delta Water Agency just south of Victoria Canal and all other tributaries of the San Joaquin River up to the first major dam. The major tributaries are the Merced, Tuolumne, and Stanislaus Rivers. This area also includes the North Fork of the Kings River from the southerly boundary of Reclamation District No. 1606 at McMullin Grade to Mendota Dam. The study area was divided into ten study reaches (shown on Figure 2) based on similarities in hydrology and environmental conditions. The reaches are defined as follows:

- 1 Friant Dam to just upstream of Gravelly Ford
- 2 Gravelly Ford to just upstream of Mendota Pool
- 3 Mendota Pool to just upstream of the mouth of the Merced River
- 4 Mouth of Merced River to just upstream of the mouth of Tuolumne River
- 5 Mouth of Tuolumne River to just upstream of the mouth of Stanislaus River
- 6 Mouth of Stanislaus River to upstream of Clifton Court Forebay
- 7 North Fork Kings River
- 8 Merced River from mouth upstream to New Exchequer Dam
- 9 Tuolumne River from mouth upstream to New Don Pedro Dam
- 10 Stanislaus River from mouth upstream to New Melones Dam

Eight major streams and twenty-two minor streams flow into the San Joaquin River. All the major streams have their headwaters in the Sierra Nevada. Most drain mountainous areas ranging from a few hundred feet above sea level in the foothills to nearly 14,000 feet at the crest of the Sierra. The San Joaquin River Basin is 290 miles long and 130 miles wide. It embraces 32,000 square miles, or one-fifth of the entire State. The San Joaquin River flows west, then north to the Delta.

Friant Dam, located on the San Joaquin River near Fresno, was completed in 1944 as part of the Central Valley Project. Construction of the Friant Division facilities was substantially completed in 1951. The Friant Unit is part of the Central Valley Project but is hydrologically separate from other project supplies. Runoff is collected in Millerton Lake behind Friant Dam. Stored water is delivered to contractors through the San Joaquin River, the Madera Canal, and the Friant-Kern Canal.

The Merced River flows west through Yosemite National Park into the San Joaquin Valley. It joins the San Joaquin River between Merced and Modesto. Flows in the lower Merced are regulated by New Exchequer Dam, McSwain Dam, Merced Falls Dam, and Crocker-Huffman Dam. Water supplies are controlled by the Merced Irrigation District.

The Tuolumne River drains a wide expanse of mountains sloping west from the crest of the Sierra between the Merced River on the south and the Stanislaus watershed on the north. It flows through Yosemite National Park and Stanislaus National Forest. It joins

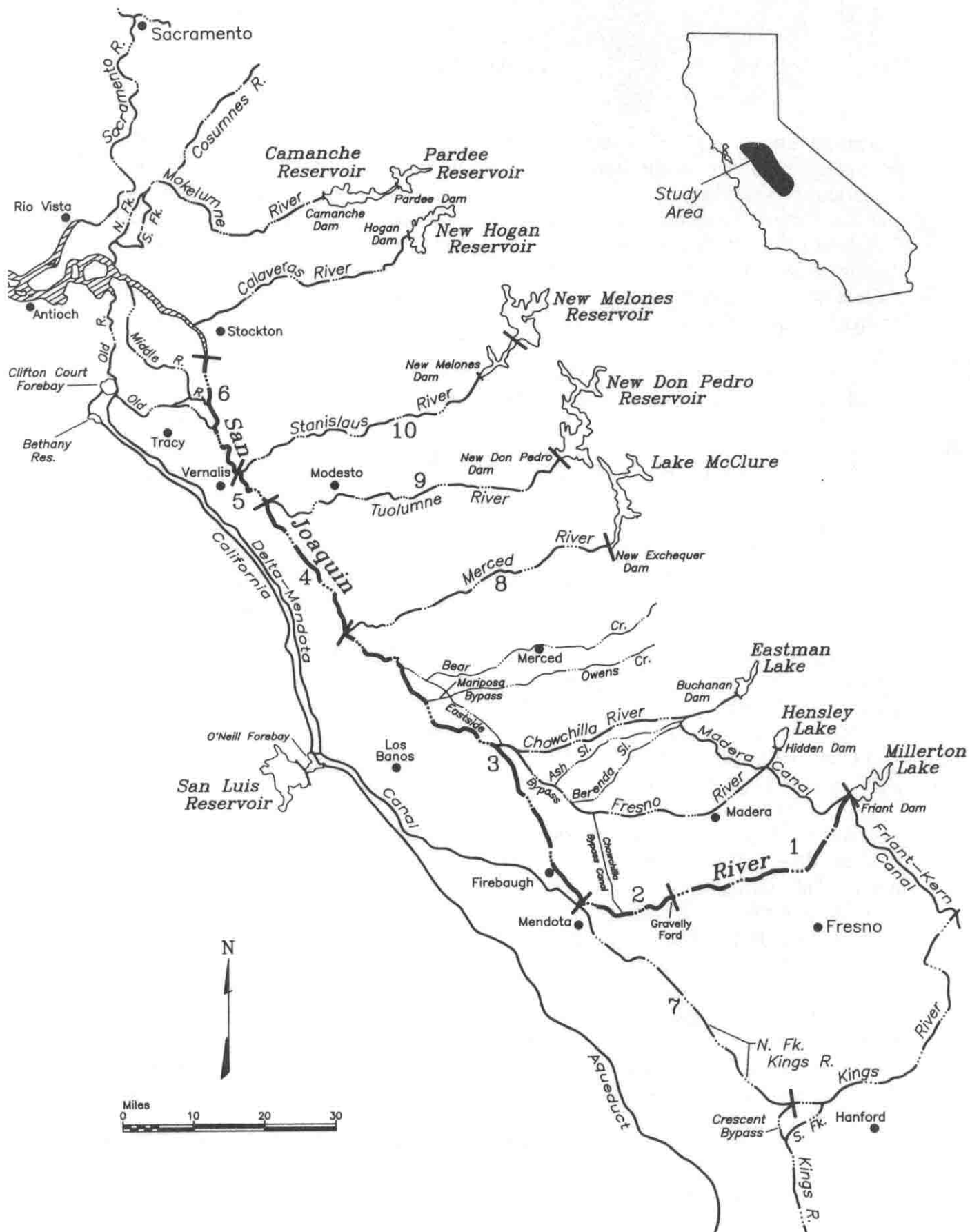


Figure 2. San Joaquin River System Study Reaches

the San Joaquin River 10 miles west of Modesto. Hetch Hetchy Reservoir on the main stem of the Tuolumne provides water for San Francisco and other peninsula cities. Lower on the Tuolumne, the Turlock and Modesto Irrigation Districts jointly built New Don Pedro Reservoir to provide water to their service areas. Other reservoirs on the Tuolumne River include Lake Eleanor, Lake Lloyd, La Grange Reservoir, Dawson Lake, Modesto Reservoir, and Turlock Lake.

The North, Middle, and South Forks of the Stanislaus form the Stanislaus proper 35 miles above the confluence with the San Joaquin River. The Stanislaus River is regulated by New Melones Dam, which is operated by the Bureau of Reclamation. Below New Melones is Goodwin Dam, which diverts water for use by the South San Joaquin and Oakdale Irrigation Districts.

The Kings River is connected to the San Joaquin River system only in times of flood. Floodwaters make their way to the North Fork of the Kings, also known as the Fresno Slough, and flow north to join the San Joaquin River.